CZECHOSLOVAKIA

EYSSELT, Milos; DOHNALEK, Josef; POLASKOVA, Anna

Dept. of Radiology and Nuclear Medicine, Medicine, Purkyne Univ. (Katedra radiologie a nuklearniho lekarstvi lekarske fakulty University JEP), Brno (for all?)

Brno, Vnitrni lekarstvi, No 1, January 1967, pp 77-84

"Some methodical remarks on routine determination of liver detoxicating function using the metabolism of o-iodobenzoic-I^{131} acid."

EYSSENGARDT, G.A., assistent

Possibility of constructing the characteristics of the transverse development of tubes with energy storage. Izv. LETI no.48:124-146 '63. (MIRA 17:12)

EYSUROVICH, A. S.

EYSUROVICH, A. S. -- "Investigation of the Properties of Fine Ferromagnetic Powders Based on Iron for Permanent Magnets." Min Electrical Engineering Industry. Sci Res Inst. Moscow, 1955. (Dissertation for the Degree of Candidate in Technical Sciences).

So.: Knizhnaya Letopis', No. 2, 1956.

Eysurovich, A.S.

Category : USSR/Magnetism - Ferromagnetism F-4

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 1406

Author : Al'tman, A.B., Eysurovich, A.S.
Title : Concerning the Dependence of the Coercive Force of Pressed Ferromagnetic Powders on the Pressing Pressure and on the Particle Concentration

Orig Pub : Fiz. metallov i metallovedeniye, 1955, 1, No 3, 441-445

Abstract : A study is made of the dependence of the coercive force of fine Fe and Fe-Co (26% Co) powders on the particle concentration and on the pressure used in compressing the powders. The Fe and Fe-Co powders were obtained by reducing organic acid salts (particle dimension approximately 0,03 microns). H_c was measured in a ballistic setup by the deflection method. It is established that changing the packing density of the ferromagnetic particles, by changing the distances between the groups of particles, does not affect H_c of thin powders and pressed parts, in contradiction with Weil's experimental data (Weil, C.r. Acad. sci. 1947, 225, 229-230). It was observed that the coercive force of the pressed parts diminishes with increasing pressure, both for constant and variable concentration of the ferromagnetic particles. The pressure used to compress the ferromagnetic powders varied from

Card : 1/2

Category : USSR/Magnetism - Ferromagnetism

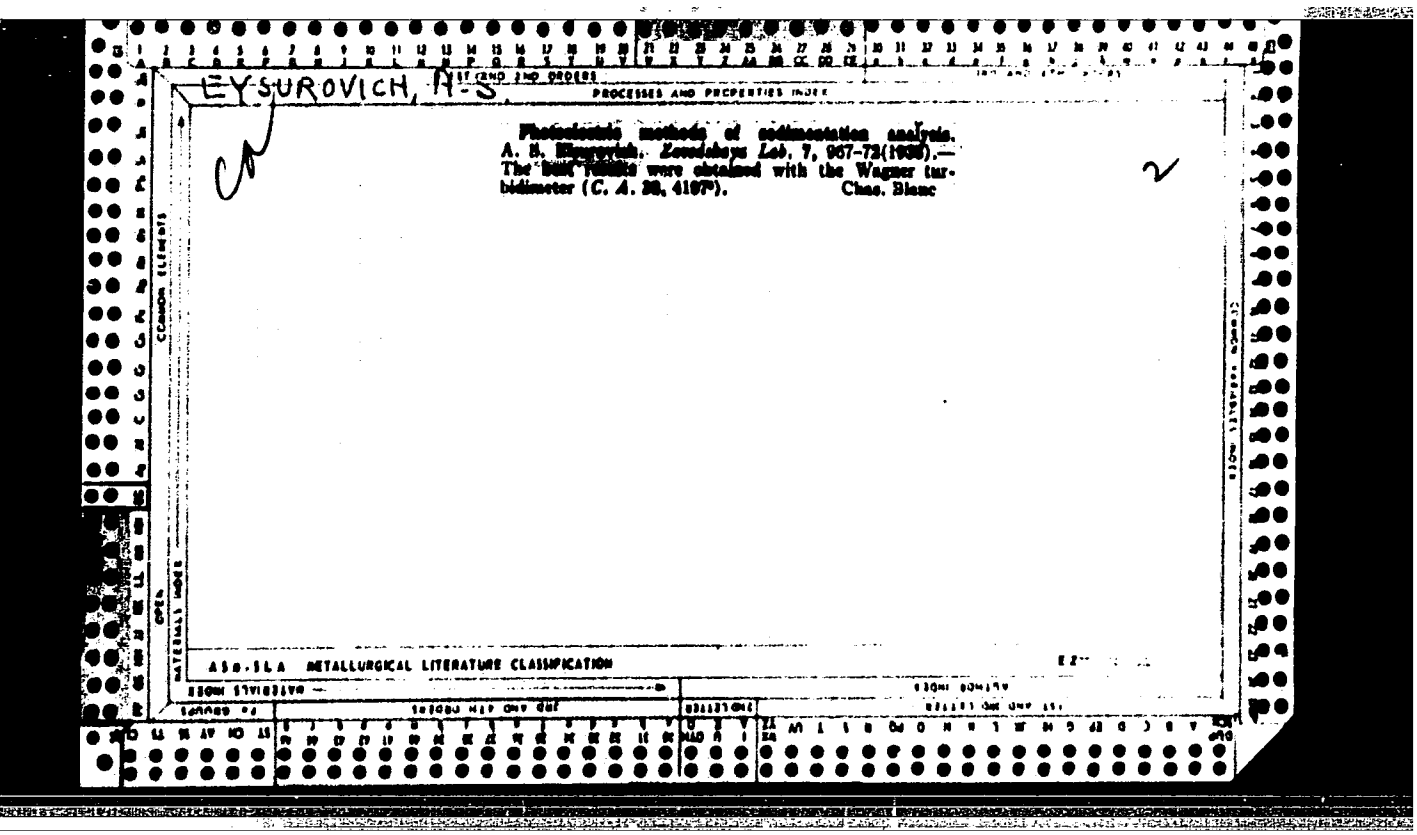
F-4

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 1406

5 kg/cm^2 to 12 tons/cm^2.

The authors propose that the reduction in H_c during the pressing process is caused by a displacement of the particles within the groups and by a change in the physical state of the particles; at small pressures (approximately 10 - 1,000 kg/cm^2) the dominating factor is the reduction in the distances between particles inside the groups, but at high pressures (approximately 1,000 kg/cm^2) the dominating factor is the change in the physical state of the particles (coagulation).

Card : 2/2


EYSUROVICH, M-S.

PROCESSES AND PROPERTIES INDEX

Photoelectric methods of sedimentation analysis.
A. M. Eisenvich. *Zavodskaya Lab.* 7, 967-72(1938).—
The best results were obtained with the Wagner tur-
bidimeter (*C. A.* 30, 4197⁹). Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

18.1142 18.6100

67288

SOV/180-59-4-21/48

AUTHOR: Eysurovich, A.S. (Moscow)

TITLE: Permanent Magnets Based on Fine Iron Powder

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 4, pp 130-134 (USSR)

ABSTRACT: The author presents some experimental results of his study of magnets of fine ferromagnetic powders. Iron formate, pure or with additions of formates of various metals, was reduced with hydrogen at temperatures of the order of 300°C and found to give maximum coercive force (Fig 1). Additions of oxides of non-ferromagnetic metals gave higher coercive force values (Fig 3, curve 1) because they prevent coagulation of the ferromagnetic particles; with Fe-Co powder the iron salt particles are also finer; a combined addition of 10% cobalt and 1% lime gave a coercive force of the powder of 1000 oersted, equal to that obtained with 25 to 30% cobalt (Fig 3, curve 3). Table 1 gives the phase composition of the various powders. It appears that with 5 to 30% cobalt there is a solid solution based on alpha-iron, giving high magnetic saturation (Fig 3, curve 2). To study the influence of particle size on coercive force the initial salts were reduced at various

Card 1/3

Permanent Magnets Based on Fine Iron Powder

temperatures, the particle sizes being measured with the aid of an electron microscope (Fig 4) and by the X-ray method (F.B.Nikishova and A.A.Katsnel'son). The relation between coercive force and particle size is shown in Fig 5 (curve 1 for iron powder with CaO, 2 and 3 for iron powder). The influence of concentration of ferromagnetic particles on the coercive force was studied by dispersing different amounts of ferromagnetic powder in the same volume of paraffin or lead powder. With lead the mixtures were compressed and the coercive force gradually decreased with increasing pressure and concentration (Fig 6, curve 3). Without compression or changes in compression, concentration did not affect the coercive force (Fig 6, curves 1,2). The influence of particle diameter on the coercive force of compressed powders was studied using three batches of powder with particle sizes 200 to 300, 400 to 500 and 800 to 1000 Å. With particles over 800 Å, concentration or compression did not influence coercive force (Fig 7, curve 3); with smaller particles coercive force falls with increasing concentration of ferromagnetic phase (Fig 7, curves 1 and 2), which the author attributes to deformation

4

Permanent Magnets Based on Fine Iron Powder

of elongated particles. Finally the author briefly describes magnet fabrication: Table 2 gives the main properties. There are 7 figures, 2 tables and 8 references, 2 of which are Soviet, 5 English and 1 French.

4

SUBMITTED: April 1, 1959

EYSUROVICH, A.S.

Magnetic iron oxide made from iron oxalate for recording carriers.
Trudy VNAIZ no.7:80-88 '60. (MIRA 14:4)
(Iron oxide) (Magnetic recorders and recording)

S/081/62/000/002/066/1C
B150/B101

AUTHOR: Eysurovich, A. S.

TITLE: Magnetic tape based on finely dispersed cobalt ferrite powder

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1962, 373, abstra. 2K194 (Tr. Vses. n.-i in-ta zvukozapisi no. 8, 196', 48-60)

TEXT: The technology for the preparation of finely dispersed powders of cobalt ferrite with different magnetic parameters was improved. Two basic compositions of the powders were developed with the following magnetic properties: 1) a powder for sound-recording (containing 2 - 2.3% Co), coercive force 300 - 450 oe, residual magnetism 1100 - 1200 gauss, coeff. of rectangularity 0.65 - 0.68; 2) a powder for pulse work (containing 3.8% Co), coercive force 630 - 670 oe, residual magnetism 1200 - 1300 gauss, coeff. of rectangularity 0.74 - 0.77. Conditions were established for obtaining a stable ferromagnetic lacquer suspension. [Abstracter's note: Complete translation.]

Card 1/1

S/196/62/000/018/003/017
E194/E155

AUTHOR: Eysurovich, A.S.

TITLE: Finely-divided nickel-zinc ferrites

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.18, 1962, 3, abstract 18 B 14. (Tr. Vses. n.-i. in-ta zvukozapisi, no.9, 1961, 138-145).

TEXT: A procedure has been developed for the production of finely-divided Ni-Zn-ferrite with the addition of Cu. As this ferrite has a dense structure the quality of the working surface of the slit in a magnetic head can be improved. In addition to the development of finely-divided ferrite a procedure has been perfected for making various cores from production-grade Ni-Zn-ferrite powder, similar in composition to grade Φ_2-400 (F_2-400) and with stable magnetic properties.
6 figures, 7 references.

[Abstractor's note: Complete translation.]

Card 1/1

EYSYMONT, A.

On the screen, "War and Peace." Starsh.-serzh. no.8:38-39 Ag '62. (MIRA 15:8)

(Motion picture plays)

MIKULIN, V.; MYSYMONT, L., red.; MATISSEN, Z., tekhn. red.

[First book on photography; handbook for beginners] Pervaia kniga po fotografii; posobie dlia nachinaiushchikh. Izd.8., perer. Moskva, Goskinoizdat, 1950. 149 p. (MIRA 15:3)

(Photography)

PROVORNOV, Sergey Mikhaylovich; GOLOD, Iosif Semenovich; BERSHTEYN, Naum Davydovich. Prinimal uchastiye KARIPIDI, S.D., kand. tekhn. nauk, starshiy nauchnyy sotr.; EYSYMONT, L., red.; PEREGUDOVA, M., tekhn. red.

[Equipment for motion-picture film printing]Kino-kopiroval'naia apparatura. Moskva, Iskusstvo, 1962. 314 p. (MIRA 15:10)

(Motion-picture photography--Equipment and supplies)

EYSVIDIS, I.N., nachal'nik.

Work of industrial enterprises of the Main Pharmaceutical Administration of the Ministry of Public Health of the Lithuanian S.S.R. Apt.delo 2 no.5:21-24 S-O '53. (MLRA 6:10)

1. Glavnoye aptechnoye upravleniye Ministerstva zdravookhraneniya Litovskoy SSR. (Lithuania--Pharmacy) (Pharmacy--Lithuania)

EYSYMONT, J.

EYSYMONT, J. The Scientific Council of the Institute of Metallurgy.
Bliuletyn. p. 44. Vol. 21, no. 11, Nov. 1956.
HUTNIK. Katowice Poland

SOURCE: East European Accessions List (EEAL) LC Vol. 5, No. 6, June 1956

AVILOV, G.V.; PODGORETSKIY, Ye.K.; ZYSYMONT, L.O., redaktor; VORONTSOVA, Z.V., tekhnicheskiy redaktor.

[Motion-picture screens and ways of making them] Kinoekrany i sposoby ikh izgotovleniia. Moskva, Gos. izd-vo "Iskusstvo," 1954. 82 p. (MLRA 8:3)
(Motion-picture projection)

GOLDOVSKIY, Yevsey Mikhaylovich; EYSYMONT, L.O., redaktor; ALEXANDROV, G.K., tekhnicheskiy redaktor.

[Electric motors for motion-picture projectors] Elektrodvigateli kinoproektorov. Moskva, Gos. izd-vo "Iskusstvo," 1954. 114 p.
(Electric motors)(Motion-picture projectors)

PROVORNOV, Sergey Mikhaylovich; PLETNIKOV, K.V., redaktor; RYSYMONT, L.O., redaktor; VALYNTSEVA, V.A., tekhnicheskiy redaktor

[Motion-picture projection apparatus] Kinoproektsionnaia apparatura. Pod obshchei red. K.V.Pletnikova. Moskva, Gos. izd-vo "Iskusstvo," 1954. 366 p. (MLRA 7:9)
(Motion-picture projectors)

EYSYMONT, L.O

MELIK-STEPANYAN, A.M.; EYSYMONT, L.O., redaktor; ALEKSANDROV, V.I. tekhnicheskiy redaktor.

[Stabilizers of film speed] Stabilizatory skorosti kinofil'ma. Moskva, Gos. izd-vo "Iskusstvo," 1955. 106 p. (MLRA 8:8)
(Motion-picture projectors)

GOLOSTENOV, G.A.; DERBISHER, T.V.; EYSYMONT, L.O., redaktor; MATISSEN, Z.M., tekhnicheskiy redaktor.

[Sources of light for motion-picture projectors] Istochniki sveta kinoproektorov. Moskva, Gos.izd-vo "Iskusstvo," 1955. 126 p. (MLRA 8:12)
(Motion-picture projectors)

BORISENKO, Ivan Vasil'yevich; BISYMONT, L.O. redaktor; CHICHERIN, A.N. tekhnicheskiy redaktor.

[Safety engineering for moving-picture theaters] Tekhnika bezopasnosti na kinoustanovkakh. Moskva, Gos. izd-vo "Iskusstvo," 1955. 159 p. (MLRA 8:7)
(Moving-picture theaters--Safety measures)

NASHEL'SKIY, Arkadiy Yuzefovich; STEPANCHENKO, Z.I., redaktor; EYSYMONT, L.O., redaktor; ALEKSANDROV, V.I., tekhnicheskiy redaktor

[Organization and operation of motion-picture projectors in rural districts] Organizatsiia i ekspluatatsiia sel'skikh kinoustanovok. Moskva, Gos. izd-vo "Iskusstvo," 1955. 161 p. (MLRA 8:7)
(Motion-picture projection)

YAKOBSON, Avsey Khananovich; OSKOLKOV, I.N., kand.tekhn.nauk, red.; EYSYMONT, L.O., red.; VOLYNTSEVA, V.A., tekhn.red.

[Elementary electrical and radio engineering] Elementarnaia elektroradiotekhnika. Pod red. I.N.Oskolkova. Moskva, Gos. izd-vo "Iskusstvo," 1955. 226 p. (MIRA 12:4)
(Electric engineering)

BARBANEL', Simon Rafailovich; MYSYMONT, L.O., redaktor; ALEKSANDROV, V.I., tekhnicheskiy redaktor; VOLYNTSEVA, V.A., tekhnicheskiy redaktor.

[Repair of motion-picture projectors] Remont kinoproektsionnoi apparatury. Moskva, Gos.izd-vo "Iskusstvo", 1955. 266 p. (Motion-picture projectors) (MLRA 9:5)

GOLDOVSKIY, Ye. M. doktor tekhnicheskikh nauk; [redacted], L.O., redaktor; VORONTSOVA, Z.V., tekhnicheskiy redaktor.

[Color cinematography] TSvetnaia kinematografiia. Moskva, Gos. izd-vo "Iskusstvo," 1955. 356 p. (MLRA 8:8)
(Cinematography)

BALL, Aleksey Mikhaylovich; EYSYMONT, L.O., redaktor; CHICHERIN, A.N., tekhnicheskiy redaktor

[The technique of putting teaching materials on the screen; educational projection] Tekhnika ekranizatsii uchebnogo protsessa; uchebnaia proektsiia. Moskva, Gos.izd-vo "Iskusstvo," 1956. 174 p. (MIRA 9:4)
(Lantern projection) (Moving-picture projection)

NEVSKIY, V.P.; KRASOVSKIY, M.E.; BUDRIN, A.N.; BISIKALOV, V.A., redaktor; EYSYMONT, L.O., redaktor; MALEK, Z.N., tekhnicheskiy redaktor

[Manual for rural motion-picture operators] Spravochnik sel'skogo kinomekhanika. Pod red. V.A.Bisikalova. Moskva, Gos. izd-vo "Iskusstvo," 1956. 310 p. (MLRA 10:2)
(Motion-picture projection)

SHMYREV, Viktor Ivanovich; PROVORNOVA, S.M., kandidat tekhnicheskikh nauk, redaktor; MYSYMONT, L.O., redaktor; VORONTSOVA, Z.V., tekhnicheskiy redaktor

[Motion-picture film and motion-picture projection apparatus] Kinofil'm i kinoproektsionnaia apparatura. Pod red. S.M.Provornova. Izd. 2-oe, i dop. Moskva, Gos. izd-vo "Iskusstvo," 1956. 423 p. (Motion-picture projectors) (MLRA 10:2)

EYSYMONT, L.O.

VYSOTSKIY, M.Z.; EYSYMONT, L.O., red.; MALEK, Z.N., tekhn.red.

[Widescreen stereophonic motion pictures] Shirokoekrannoe stereofonicheskoe kino. Moskva, Gos. izd-vo "Iskusstvo," 1957. 159 p.
(Motion picture projection) (MIRA 11:2)
(Cinematography)

EYSYMONT, L.O.

BOLOTNIKOV, Igor' Mikhaylovich; EYSYMONT, L.O., red.; MALEK, Z.N., tekhn. red.

[Loudspeakers for motion-picture theaters] Kinoteatral'nye gromkogovoriteli. Moskva, Gos. izd-vo "Iskusstvo," 1957. 202 p.
(Loudspeakers) (MIRA 11:7)

EYSYMONT, L. O.

Muromtsev, Vasiliy Vasil'yevich. [Chapters I and XII by Faynshteyn, A.A.]

Usilitel'nyye ustroystva i elektroakustika (Amplifiers and Electro-acoustics) 2d ed., rev. and enl. Moscow, "Iskusstvo", 1957, 465 p.

Ed.: Eysymont, L. O.; Tech. Ed.: Shilina, Ye. I.; Corrector: Stankevich, Ye. M.

PURPOSE: The monograph is intended as a textbook for motion picture technician schools and for persons wishing to improve their technical qualifications.

COVERAGE: The book contains an elementary description of the physical processes occurring in electron tubes and photocells and examines the principle of operation of rectifiers, amplifiers, and loudspeakers. A description is given of up-to-date industrial amplifiers; the performance of sound-reproducing devices is reviewed. The 1st and 12th chapters are written by Faynshteyn, A. A. There are no references.

Card 1/9

Amplifiers and Electroacoustics (Cont.)

TABLE OF CONTENTS:

Foreword	3
Ch. I. General Information Regarding Sound	6 - 30
1. Nature of sound	6
2. Perception of sound, sources of sound	15
3. Propagation of sound in enclosed areas. Reverberation	23
Ch. II. Two-Electrode Electron Tubes	
1. Fundamental concepts on the structure of the atom	31-54
2. Electron radiation from incandescent bodies	32
3. The Edison effect	33
4. Structure of diode tubes	35
5. Dependence of electron radiation on temperature	38
6. Space charge and the characteristics of diodes	38
7. Power diffused on the plate	42
8. Role of the vacuum	43
9. Structure of electron tube cathodes	46

Card 2/9

Amplifiers and Electroacoustics (Cont.)

Ch. III. Kenotron Rectifiers 55-73

1. Rectifying properties of the diode 55
2. Kenotron rectifiers 57
3. Smoothing filters of the kenotron rectifiers 62
4. Operational properties of kenotron rectifiers 67

Ch. IV. Phanotrons and Phanotron Rectifiers 74-92

1. The phanotron and its structure 74
2. Low-voltage phanotron rectifiers 85
3. Feed voltage control in rectifiers 88

Ch. V. Three-Electrode Electron Tubes (Triodes) 93-127

1. Purpose of triodes 93
2. Structure of triodes 94
3. Physical phenomena occurring in triodes 95
4. Characteristics of triodes 98
5. Triode parameters 103

Amplifiers and Electroacoustics (Cont.)

6. Amplification by means of a triode 110
7. Distortions occurring during amplification with a triode 114
8. Negative bias circuits 123

Ch. VI. Multielectrode Electron Tubes 128-134

1. Four-electrode tubes and their properties 128
2. Pentodes 131
3. Beam tubes 132
4. Metal tubes 133

Ch. VII. Photocells 135-146

Ch. VIII. Audio-Frequency Amplifiers 147-189

1. Classification of amplifiers and their basic specifications 147
2. Resistance-coupled voltage amplifiers 152
3. Specification of the components in the layout of a resistance-coupled amplifier 167
4. Transformer-coupled voltage amplifiers 172

Amplifiers and Electroacoustics (Cont.)

Ch. IX.	Power, or Final Amplifiers	190-230
1.	Ordinary single-cycle final stage	190
2.	Operational conditions of output tubes	201
3.	Push-pull final stages	204
4.	Operational conditions of push-pull final stages	212
5.	Driver stages	218
6.	Inverse driver stages	219
7.	Self-balancing driver stages	224
Ch. X.	Autoexcitation of Multistage Amplifiers and Negative Feedback	231-253
1.	Principle of the oscillator tube performance	232
2.	Types of spurious couplings and methods of oscillation suppression in amplifiers	236
3.	Purpose of the negative feedback in the amplifiers	245
4.	Types of negative feedback in the amplifiers	248

Amplifiers and Electroacoustics (Cont.)

Ch. XI.	Input Circuits, Correction of Frequency Distortions, and Abatement of Interference in Audio-Frequency Amplifiers	254-285
1.	Special features of connecting photocells at an amplifier input	254
2.	Special features of a microphone input and of the input of a mechanical reproducer (adapter)	260
3.	Correction of frequency distortions in audio-frequency amplifiers	263
4.	Interference in audio-frequency amplifiers and its abatement	277
Ch. XII.	Electroacoustic Devices	286-317
1.	Principal characteristics of loudspeakers	286
	Rated capacity of loudspeakers	286
	Efficiency and sensivity	287
	Frequency characteristic	289
	Directivity	290
	Nonlinear distortions	291

Card 6/9

Amplifiers and Electroacoustics (Cont.)

2.	Electrodynamic cone loudspeakers	291
	Magnetic circuit	293
	Mobile system	295
	Loudspeaker performance on a board	299
	Loudspeaker performance in a box	300
	Phase inverter	300
3.	Horn loudspeakers	302
4.	Two-band loudspeakers	306
5.	Microphones	309
	Dynamic microphones	310
6.	Magnetic telephone	312
7.	Electromagnetic pickup	314

Card 7/9

Amplifiers and Electroacoustics (Cont.)

Ch. XIII. Typical Faults in Sound Reproducing Systems and Methods for Their Detection 318-333

1. Classification of faults in sound reproducing systems 318
2. Power reduction of a sound reproducing system 318
3. Interference 322
4. Autoexcitation of amplifiers (oscillation) 326
5. Faults causing the cessation of performance of a system, and general methods for detecting faults 327
6. Basic rules for the operation of sound reproducing systems 333

Ch. XIV. Industrial Amplifier Systems 334

1. Mobile sound reproducing set KPU- 47 334
2. Mobile sound reproducing set KPU- 156 345
3. Universal mobile sound reproducing set KPU- 50 356

Card 8/9

BABENKO, Valeriy Sergeyevich; KYSYMONT, L.O., red.; MALEK, Z.N., tekhn.red.

[Television and motion pictures] Televidenie i kino. Moskva, Gos.izd-vo "Iskusstvo," 1958. 222 p. (MIRA 12:5)
(Motion pictures and television)

SHOR, Isaak Vladimirovich; EYSYMONT, L.O., red.; MALEK, Z.N., tekhn.red.

[Motion-picture operator of the first category] Kinomekhanik pervoi kategorii. Moskva, Gos.izd-vo "Iskusstvo," 1958. 326 p. (MIRA 12:4)
(Motion-picture projection)

BARBANEL', Simon Rafailovich; BARBANEL', Solomon Rafailovich; KOROLEV, Nikolay Mikhaylovich; SOLOMONIK, Aron Vul'fovich; TSIVKIN, Mikhail Vul'fovich; PROVORNOV, S.M., kand.tekhn.nauk, red.; [illegible], L.O., red.; MALEK, Z.N., tekhn.red.

[Motion-picture projection] Kinoproektsionnaia tekhnika. Pod obshchei red. S.M.Provornova. Moskva, Gos.izd-vo "Iskusstvo," 1958. 517 p. (MIRA 12:3)
(Motion-picture projection)

BLYUMBERG, Il'ya Borisovich; EYSYMONT, L.O., red.; MALEK, Z.N., tekhn.red.

[Technology of processing cinematographic materials] Tekhnologiia obrabotki kinofotomaterialov. Moskva, Gos. izd-vo "Iskusstvo," 1958. 618 p. (MIRA 11:3)
(Cinematography)

BURGOV, V.A.; ISTOMIN, I.V. [translator]; SHEYNEMAN, M.Kh. [translator]; EYSYMONT, L.O., red.; MALEK. Z.N., tekhn.red.

[Television broadcasting of motion pictures; a collection of translated materials] Kinotelevizionnaia tekhnika; sbornik perevodnykh materialov. Moskva, Gos.izd-vo "Iskusstvo," 1959. 383 p. (MIRA 12:4)

(Motion pictures and television)

MELIK-STEPANYAN, Aram Matveyevich; PROVORNOV, Sergey Mikhaylovich; EYSYMONT, L.O., red.; MALEK, Z.N., tekhn.red.

[Parts and mechanisms of motion-picture equipment] Detali i mekhanizmy konoapparatury. Moskva, Gos.izd-vo "Iskusstvo," 1959. 431 p. (MIRA 13:2)
(Motion-picture projection--Equipment and supplies)

LYALIKOV, Konstantin Sergeyevich; KYSYMONT, L.O. red.; FOMIN, A., red.; PERSUDOVA, M., tekhn.red.

[Theory of photographic processes] Teoriia fotograficheskikh protsessov. Moskva, Gos.izd-vo "Iskusstvo," 1960. 357 p. (MIRA 13:12)

(Photography)

VYSOTSKIY, Mikhail Zinov'yevich; EYSYMONT, L.O., red.; CHICHERIN, A.N., tekhn.red.

[Magnetic sound recording for motion pictures] Magnitnaia zvukozapis' kinofil'mov. Moskva, Gos.izd-vo "Iskusstvo," 1960. 285 p. (MIRA 13:5)
(Magnetic recorders and recording)
(Motion pictures, Talking)

FEDOSEYEV, Pavel Gavrilovich; OSKOLKOV, I.N., kand.tekhn.nauk, retsenzent; EYSYMONT, L.O., red.; REYZMAN, Ye.Ya., tekhn.red.

[Rectifiers and stabilizers] Vypriamiteli i stabilizatory. Moskva, Gos.izd-vo "Iskusstvo," 1960. 517 p. (MIRA 13:7)
(Electric current rectifiers) (Electric controllers)

FEDOSEYEVA, Yelena Osipovna; EYSYMONT, L.O., red.; TUMANOVSKIY, R.F., tekhn. red.; SUSHKEVICH, V.I., tekhn. red.

[Amplifying devices] Usilitel'nye ustroistva. Moskva, Gos.izd-vo "Iskusstvo," 1961. 310 p. (MIRA 14:6)
(Amplifiers (Electronics))

BENEDIKTOV, Aleksandr Aleksandrovich [deceased]; SHOR, I.V., inzh.; EYSYMONT, L.O., red.; PODSHEBYAKIN, I.N., tekhn. red.

[The sound system part of the motion-picture projector]Zvukovaia chast' kinoproektora. Izd.2., perer. i dop. I.V. Shorom. Moskva, Iskusstvo, 1962. 167 p. (MIRA 15:12)
(Motion-picture projectors) (Sound--Recording and reproducing)

KONOPLEV, Boris Nikolayevich; EYSYMONT, L.O., red.; REYZMAN, Ye.Ya., tekhn. red.

[Production of motion pictures]Proizvodstvo kinofil'mov. Moskva, Izd-vo "Iskusstvo," 1962. 396 p. (MIRA 16:1)
(Motion pictures--Production and direction)

GOLDOVSKIY, Yevsey Mikhaylovich, prof.; EYSYMONT, L.O., red.;
GORINA, V.A., tekhn. red.

[New motion-picture systems in the U.S.S.R.] Novye sistemy kinematografa v SSSR. Moskva, Izd-vo "Iskusstvo," 1962. 1 v. (MIRA 16:12)

(Motion pictures)

EYSYMONT, L. O.

IRSKIY, Grigoriy Lazarevich; EYSYMONT, L.O., redaktor; MATISSEN, Z.M., tekhnicheskiy redaktor

[Motion-picture projection] Tekhnika pokaza kinofil'mov. Moskva, Gos.izd-vo "Iskusstvo," 1957. 483 p. (MLRA 10:10)
(Motion-picture projection)

PODKUYKO, Sergey Il'ich; TRET'YAKOVA, Agniya Aleksandrovna; EYSYMONT,L., red.; PEREGUDOVA, M., tekhn. red.

[Measurements in the amplifiers of motion-picture systems] Izmereniia v usiliteliakh kinoustanovok. Moskva, Gos. izd-vo "Iskusstvo," 1960. 141 p. (MIRA 15:3)
(Electronic measurements) (Motion-picture projectors)

ANDEREG, Georgiy Ferdinandovich; PROVORNOV, S.M., prof., red.; EYSYMONT, L.O., red.; GORINA, V.A., tekhn. red.

[Regulation of motion-picture projecting and sound-reproducing apparatus] Regulirovka kinoproektsionnoi i zvukovosproizvodiashchei apparatury. Moskva, Izd-vo "Iskusstvo," 1963. 207 p. (MIRA 16:10)
(Motion-picture projection)
(Sound-recording and reproducing)

IRSKIY, Grigoriy Lazarevich, kand. tekhn. nauk; EYSYMONT, L.O., red.; ZHERDETSKAYA, N.N., red.; SUSHKEVICH, V.I., tekhn. red.

[Lighting equipment and techniques in motion-picture projection] Svetotekhnika kinoproektsii. Moskva, Gos. izd-vo "Iskusstvo," 1961. 263 p. (MIRA 15:4)

1. Nauchnyy rukovoditel' svetotekhnicheskoy laboratorii Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta (for Irskiy).

(Motion-picture projection)

GORBACHEV, Boris Konstantinovich; EYSYMONT, L.O., red.; BORISOVA, V.U., tekhn. red.

[Techniques of composite motion-picture photography] Tekhnika kombinirovannykh s"emok. Izd.2. Moskva, Gos.izd-vo "Iskusstvo," 1961. 274 p. (MIRA 15:4)
(Motion-picture photography, Trick)

SHMYREV, V.I.; PROVORNOV, S.M., kand.tekhn.nauk, red.; EYSYMONT, L.O., red.; MALEK, Z.N., tekhn.red.

[Motion-picture film and its projection] Kinofil'm i kinoproektsionnaia apparatura. Pod obshchei red. S.M.Provornova. Izd.3., perer. i dop. Moskva, Gos.izd-vo "Iskusstvo," 1961. 402 p. (MIRA 14:4)

(Motion-picture projection)

FEDOSEYEVA, Yelena Osipovna; EYSYMONT, L.O., red.

[Sound-reproducing equpment of motion-picture theaters] Zvukovosproizvodiashchaia apparatura kinoustanovok. Moskva, Iskusstvo, [illegible]. 279 p. (MIRA 18:1)

SHEYNEV, Viktor Ivanov'ch. Prinimal uchastiye: PROVORNOV, S.M., prof. EYSYMONT, L.O., red.

[Motion-picture film and motion-picture projection equipment] Kinofil'm i kinoproektsionnaia apparatura. Izd.4., perer. i dop. Moskva, Izd-vo "Iskusstvo," 1964. 535 p. (MIRA 17:8)

GOLDOVSKIY, Yevsey Mikhaylovich, prof.; PROVORNOV, S.M., prof., retsenzent; BLYUMBERG, I.B., retsenzent; MELIK-STEPANYAN, A.M., retsenzent; TSIRULINA, Z.V., dots., retsenzent; TSIVKIN, M.V., retsenzent; EYSYMONT, L.O., red.

[Fundamentals of motion-picture techniques] Osnovy kinotekhniki. Moskva, Iskusstvo, 1965. 634 p.
(MIRA 18:7)

VASIL'KOV, G.V.; SPIROV, G.A.; DZHANOV, A.; SENNIKOV, M.I.; SELYUCHENKO, A.; DEKANOV, I.; RAKHMATULLIN, M.G.; EYSMONT, V.V.; KOSOVER, S.I.; TSUVERKALOV, D.A.; LESHKOV, B.G.

Information and brief news. Veterinariia 38 no.9:90-96 S '61. (MIRA 16:8)

PAKULA, Roman; RABCZYNSKA, Felicja; DOBRZANSKI, Wladyslaw, RYSYMONTT, Irena; SOSNOWSKA, Alicja; BUDZYNOWSKA, Jozefa.

Antibiotic sensitivity of Staphylococcus isolated in various environments; role of hospital environment in spreading of resistant strains. Med.dosw.mikrob. 7 no.4:399-407 1955.

1. Z Panstwowego Zakladu Higieny i Zakladu Mikrobiologii i Higieny Wydz. Farmaceutycznego A.M. w Warszawie.

(MICROCOCCUS PYOGENES, effect of drugs on, antibiotic resist., role of hosp. in spreading of resist. strains)

(ANTIBIOTICS, effects, on Micrococcus pyogenes, role of hosp. in spreading of resist. strains)

EYSYMONTT, Irena; SOSNOWSKA, Alicja; KIBALENKO, Teresa

Staphylococcus aureus infections at an obstetric clinic. Pediat. polska 31 no.8:881-885 Aug 56.

1. Z Kliniki Poloznicznej--Kier. doc. dr. med. J. Lesinski i z Kliniki Niemowlecej--Kier. doc. dr. med. I. Bielicka, Instytutu Matki i Dziecka w Warszawie, Dyrektor Instytutu: prof. dr. med. Fr. Groer, Warszawa, Kasprzaka 17 IMiDz.
(MICROCOCCAL INFECTIONS, epidemiology, in obst. clinic (Pol))

FEYSYMONT, I

POLAND/ Microbiology. General Microbiology F-1

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 5085

Author : Pakula, Osovetskiy, Feysymont

Inst : Not given

Title : Isolation and Purification of Hyaluronidase of Hemolytic Streptococcus Group C.

Orig Pub : Med. doswiad. i mikrobiol., 1957, 9, No 2, 189-194

Abstract : Of 30 strains of hemolytic streptococci Groups A, B, C and D, the most active one is a strain of Group C which forms hyaluronidase with an activity of 100-120 units per ml of medium containing extract of heart muscle, partly purified of protein, liver extract, peptone, glucose, and mineral salts.

Card : 1/1

18(7) POL/39-59-7/8-14/24

AUTHOR: Eysymontt, J.

TITLE: Microstructure Tests Without Sample Cutting

PERIODICAL: Hutnik, 1959, Nr 7-8, pp 321-324 (POL)

ABSTRACT: Microscopic structure tests are usually carried out by first cutting a sample of the product whose structure is being tested. Yet in many cases this is impossible, the product being either too large, too hard or simply irreplaceable. P.A. Jacquet and A. Effenferre have developed in such cases a method which consists in electrolytic polishing of the spot chosen for microstructure analysis, making a nitrocellulose lacquer cast of that surface and then using it instead of the original for optical microscopic observations. Figures 1 and 2 show results obtained in this way by the authors of this method. After preliminary tests, the Ferrous Metallurgy Institute in Gliwice developed a slightly different procedure, consisting of hand grinding and polishing of the desired surface, exposing the surface to the action of a suitable reagent, cover-

Card 1/3

ing it thickly with a mixture consisting of equal parts of capon lacquer and "Nitro" black lacquer, finally using the easily separable cast for optical observation. The method was tested on a ring illustrated in figure 3. Hand grinding and polishing lasted about one hour, i.e. just about as long as sample cutting would have taken. Figures 4 (380 x enlarged) and 5 (580 x enlarged) show microscopic pictures taken of the cast. Figures 6, 7 and 9 show in a) and b) microscopic pictures of the original surface and the lacquer cast, the materials used being respectively: carbon steel, perlitic steel and ferritic cast iron. Figure 8 shows pictures of ferritic-perlitic cast iron, but the picture of the cast does not represent the same part of the surface tested as picture 8a. These pictures show that the Institute's method is very accurate. It may be used with profit for instance in examining the structure of new rolls or of various structural parts exposed to the danger of metal fatigue. Moreover, the method is very important in examining radio-active materials such as uran-

ium, without endangering the health of personnel. In conclusion, the author points out that this method may be varied upon by using other materials for the casts, such as plastics, Yet another method simply employs a specially constructed microscope which eliminates both sample cutting and cast making, being portable and adjustable to observations in various conditions. There are 13 photographs, and 2 references, 1 of which is Polish and 1 French.

P/014/63/042/003/003/003
D204/D307

AUTHORS: Eysymontt, Janusz and Górska, Maria

TITLE: Emulsification of methylsilicone oils with the aid of an acoustic cogged generator

PERIODICAL: Przemysł Chemiczny, v. 42, no. 3, 1963, 167-172

TEXT: The present work is a development of studies carried out at the Instytut Tworzyw Sztucznych (Plastics Institute) on the emulsification of methylsilicone oils, and was aimed at developing a method for a semi-technical scale process, for methylsilicone oils of various viscosities, to form highly concentrated emulsions. The present authors used a so-called acoustic cogged generator patented by Engineer J. Tabin and J. Glowalla (Pol. pat. 40022 (1956)). Plan of the work embraced (1) determination of the minimum dose of emulsifier for a 33% emulsion, (2) attempts at emulsification of oils of viscosity higher than 200 centistokes, and at obtaining highly concentrated (e.g. 50 and 70%) emulsions. Most tests were carried out with commercial E. German methylsilicone oil OE4018/350, of viscosity

Card 1/3

Emulsification of ...

3.50 centistokes, with ~ 33-66% of the emulsion by weight, and 1-5% of emulsifier. The emulsions were examined by microphotography, and curves showing the numerical and volume distribution of particles were plotted. Characteristic values are tabulated. It was found that: emulsion quality depends little, if at all, on the number of passes through the generator; the degree of dispersion increases with the proportion of emulsifier; oils 146-910 centistokes in viscosity may be emulsified; 66% emulsion of OE 4018/350 was of equal quality to the 33% emulsion; the emulsion quality was similar to that of commercial E. German emulsions; emulsion stability was high; the resultant emulsions are suitable for hydrophobization of glasses and ceramics, spraying of molds in rubber and plastics technology, etc. The authors wish to thank Paweł Rościszewski, Director of the Pracownia Silikonów (Silicone Laboratory) of the Plastics Institute for his initiative, supply of test materials, and assistance in the evaluation of results.

ASSOCIATION: Pracownia Ultradźwiękowa Zakładu, Fizyki Technicznej Instytutu Chemii Ogólnej w Warszawie (Ultrasonics Laboratory of the Department of Technological Physics,

Emulsification of ... P/014/63/042/003/003/003
D204/D307

General Chemistry Institute in Warsaw)

SUBMITTED: July 27, 1962

Card 3/3

[redacted]

RYSYMONTT, Jerzy

Testing fractures with the electronic miproscope. Mechanika Gliwice no.16:25-32 '62.

1. Instytut Metalurgii Zelaza, Gliwice.

WITWICKI, Tadeusz; TALEJKO, Eugeniusz; MADRZYCKI, Tadeusz; MATERSKA, Maria; MATUSEWICZ, Czeslaw; ZYSYMONTOWA, Maria; TYSZKOWA, Maria; STRABURZYNSKA, Teresa; TYSZKA, Zbigniew; WYSOCKA, Ludwika; STACHOWSKI, Ryszard; RADWILOWICZ, Ryszard; HORNOWSKI, Boleslaw; SEDLAK, Jiri

New books. Przegl psychol no.8:123-185 '64.

EYTELBERG, M.R.

V

COUNTRY : USSR
CATEGORY : Pharmacology and Toxicology. Miscellaneous Preparations
ABS. JOUR. : RZhBiol., No. 5 1959, No. 23218

AUTHOR : Eytel'berg, M. R.
INST. :
TITLE : Use of Viper Venom in the Treatment of Chronic Infectious Arthritis

ORIG. PUB. : Vrachebn. delo, 1958, No 3, 307-308

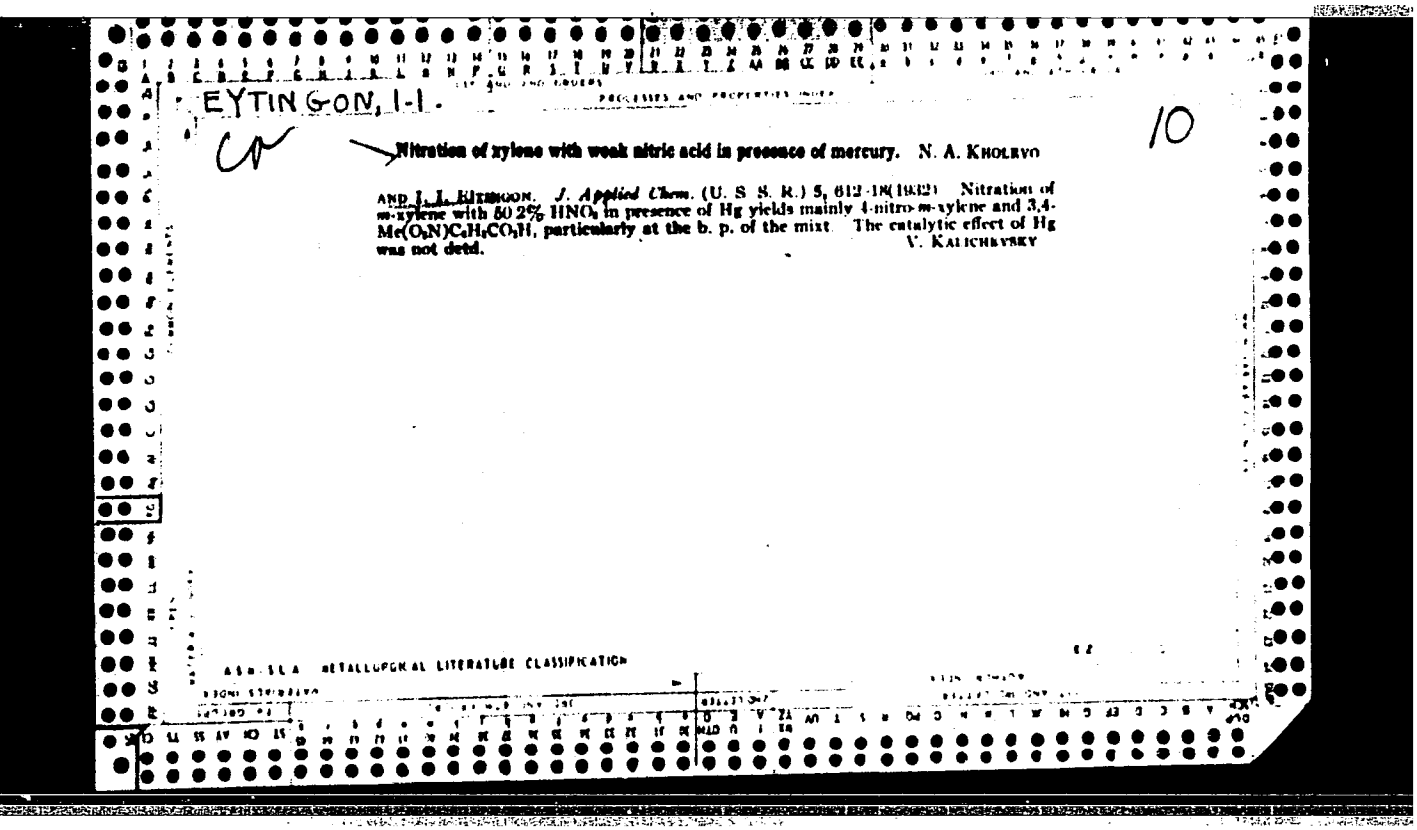
ABSTRACT : 61 patients with chronic infectious arthritis were treated with a 0.01% solution of the common viper venom in the form of intracutaneous injections in a dose of 0.1-0.4 ml during 4-6 weeks. The local reaction (edema) lasted 12-72 hours. In the 2-4th week of the treatment, a prolonged (up to 2 weeks) period of aggravation was observed in almost all patients. Clinical improve-

Card: 1/2

69

EYTINGEN, C. R. DECEASED

Forest Research see ILC

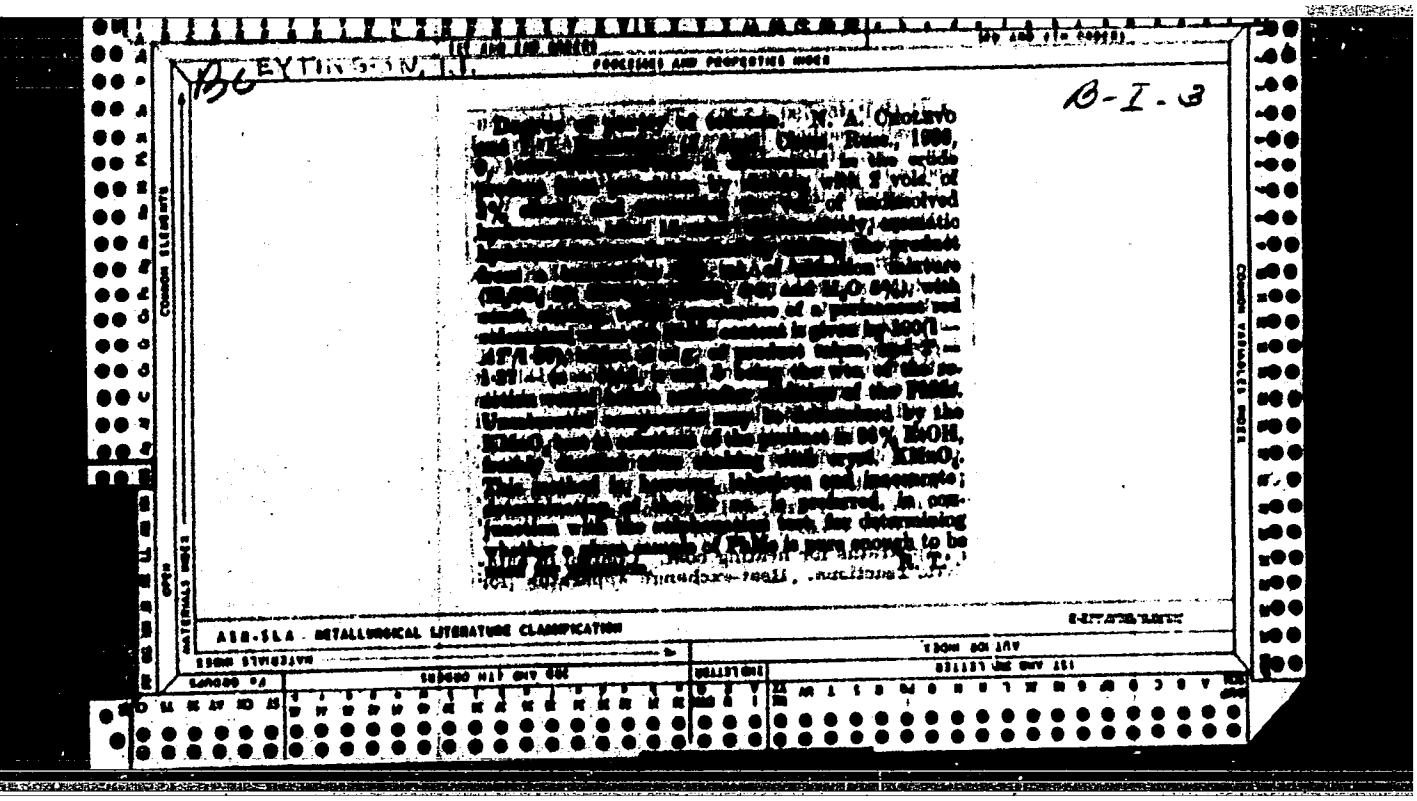


EYTINGON, I-I.

10

Nitration of xylene with weak nitric acid in presence of mercury. N. A. KHOLEVO AND I. I. EITINGON. *J. Applied Chem.* (U. S. S. R.) 5, 612-18(1932). Nitration of *m*-xylene with 50.2% HNO_3 in presence of Hg yields mainly 4-nitro-*m*-xylene and 3,4-$Me(O_2N)C_6H_3CO_2H$, particularly at the b. p. of the mixt. The catalytic effect of Hg was not detd. V. KALICHEVSKY

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



EYTINGON, I. I.

Vulcanization of butadiene-styrene and natural rubber. I. I. Eitingon, G. P. Shekhtachev, [illegible] Khromov, and N. P. Strel'nikova. U.S.S.R. [illegible] July 25, 1957. Methylene blue, [illegible] violet are incorporated in the rubber as vulcanization accelerators and to prevent scorching. M. Hosch

SOV/138-58-7-2/19

AUTHORS: Dogadkin, B.A., Eytingon, I.I., Tarasova, Z.N., Khromov, M.K., and Strel'nikova, N.P.

TITLE: The Use of Alkylphenolaldehyde Sulphide Resins for Increasing the Adhesion and Strength of Bonds in Products Made from Butadiene-styrene Rubber (Primeneniye alkilfenolal'degid sul'fidnykh smol dlya povysheniya kleykosti i prochnosti svyazi v izdeliyakh iz butadiyen-stirol'nogo kauchuka)

PERIODICAL: Kauchuk i rezina, 1958, Nr 7, pp 5 - 10 (USSR)

ABSTRACT: Alkylphenolaldehyde sulphide resins increase the adhesion of butadiene-styrene rubber (Ref 1). These resins are obtained by treating the condensation product of n-tert.-butylphenol and formaldehyde with SCl_2 or S_2Cl_2 in an alkaline medium. The condensation product was dissolved in dry dichlorethane and a 20% solution was treated at a temperature equalling its boiling point with SCl_2, diluted in an equal amount of dichlorethane. The boiling mixture was agitated for 90 minutes and the dichlorethane distilled in a vacuum at 60 °C. The softening point of the formed resin = 53 - 55 °C. On further heating to 135 °C, the softening point increased from 70 to 120 °C.

Cardl/5

The Use of Alkylphenolaldehyde Sulphide Resins for Increasing the Adhesion and Strength of Bonds in Products Made from Butadiene-styrene Rubber

The initial condensation product had an average molecular weight of 260 and the following composition: 75.0% C, 9.2% H, 15.8% O. The molecular weight of the end product = 589 and had the following composition: 73.0% C, 8.6% H, 12.1% O, 6.3% S. The disulphide resins E were prepared by treating the condensation product of alkylphenol and formaldehyde with S_2Cl_2 in substantially the same way as alkylphenolaldehyde monosulphide resins. The molecular weight of this resin = 589 which was approximately equal to the calculated value (585). Sulphide resins C were prepared from alkylphenol formaldehyde lacquer resins Nr 101 (VTO MKhP 2196-50) which is prepared by condensing n.-tert.-butylphenol with formaldehyde in an alkaline medium, and subsequently neutralising it with H_2SO_4 and hardening at 140 °C. The physico-mechanical properties of adhesives based on butadiene-styrene rubber SKS-30A containing sulphide resins and vulcanised in the

The Use of Alkylphenolaldehyde Sulphide Resins for Increasing the Adhesion and Strength of Bonds in Products Made from Butadiene-styrene Rubber

absence of sulphur or accelerators for 60 minutes at 143 °C, are listed (Table 1). Sulphide resins increase the degree of vulcanisation but alkylphenolaldehyde resins decrease the degree of vulcanisation of mbbers based on SKS-30A (Table 2). The sulphide resins impart to the resins high moduli and a high degree of break-strength. Sulphide resins have the same degree of thermal stability and resistance to ageing as rubbers not containing these resins or phenolaldehyde resins. 60% of the total amount of sulphur, introduced into the rubber in the form of a resin, is chemically bound to the rubber. Sulphide resins also strengthen the rubber. From Table 3, it can be seen that the sulphide resins increase the dynamic modulus, internal friction and the strength of the rubbers. The effect of sulphide resins on the adhesive properties of adhesives based on SKB-30A is shown in Figure 2 and Table 4. An increase in the content of sulphur and accelerators (up to 5-10%) results in increased efficiency of the rubbers (Figure 3). The degree of deformation was

The Use of Alkylphenolaldehyde Sulphide Resins for Increasing the Adhesion and Strength of Bonds in Products Made from Butadiene-styrene Rubber

found to be in an inverse proportion to the modulus. However, an increase in the content of sulphur and accelerators in the adhesives achieves better co-ordination of various layers and a very strong layer is formed in the contact region. Sulphide resins are very good adhesives. An increase in the strength of the bond of the vulcanised rubbers is achieved without lowering the adhesive properties. The investigated alkylphenolaldehyde resins inhibit the vulcanisation of rubbers and thus decrease the strength of the bonds. Resins which simultaneously decrease the degree of vulcanisation of the rubbers as, for instance, resin Nr 101, decrease also the strength of the bonds of the rubbers.

SOV/138-58-7-2/19

The Use of Alkylphenolaldehyde Sulphide Resins for Increasing the Adhesion and Strength of Bonds in Products Made from Butadiene-styrene Rubber

There are 3 Figures, 4 Tables and 6 references, 2 of which are English and 4 Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tyre Industry)

Card 5/5

1. Resins--Applications 2. Synthetic rubber--Bonding
3. Synthetic rubber--Properties

SOV/138-58-9-3/11

AUTHORS: Dogadkin, B. A; Fel'dshteyn, M. S; Eytingon, I. I. and Pevzner, D. M.

TITLE: Action of Some Heterocyclic Disulphides as Vulcanisation Agents and Accelerators (O deystvii nekotorykh geterotsiklicheskikh disul'fidov, kak agentov i uskoriteley vulkanizatsii)

PERIODICAL: Kauchuk i Rezina, 1958, Nr 9, pp 7 - 12 (USSR)

ABSTRACT: Experiments were carried out on the action of heterocyclic disulphides containing in the molecule >N-S-S-N< bonds, especially N,N'-dithiodimorpholine (DTM). This compound was obtained by reacting morpholin with sulphur dichloride in a dichlorethane solution at 2 - 4°C in the presence of alkali. Pure DTM was obtained after distillation and subsequent crystallisation. A percentage analysis of the product is given. The vulcanisation activity of DTM was investigated in butadiene-styrene rubber SKS-30A, with or without the addition of fillers, but which did not contain S. 7.4% of DTM was added to the rubber. The vulcanisation kinetics of a mixture containing sulphur was defined at the same time. Data on the kinetics of sulphur addition to the rubber at a vulcanisation temperature of 143°C is given

Card 1/3

Action of Some Heterocyclic Disulphides as Vulcanisation Agents and Accelerators

in a graph (Fig.1). Fig.2: kinetics of changes in the rate of swelling of mixtures containing N,N'-dithiodimorpholine (1) DTM, N,N'-dithiodipiperidine (2) DTP and sulphur (3). When sulphur is used as vulcanisation agent for 120 minutes, no normal vulcanisates are formed. When DTM is used as vulcanising agent good results are obtained after 45 minutes (Fig.3). The effect of DTM on mixtures containing sulphur is graphically shown in Fig.4A. The vulcanising activity of DTM increases sharply when small quantities of mercaptobenzothiazole MBT or of sulphonamide BT are added. Vulcanisation systems containing DTM and dibenzothiazole disulphide (DBTD), but without sulphur, can be vulcanised in 40 - 50 minutes at 138°C; these optimum conditions are the same as for vulcanisates prepared by using sulphonamide and considerable quantities of sulphur (Fig.4B). Fig.5: Variations in the plasticity (according to Mooney) in mixtures containing DTM and sulphonamide BT. Values on swelling in xylene and solubility in chloroform after heating for 60 minutes at 100, 110, 120 and 130°C are given (Table 1). The

Action of Some Heterocyclic Disulphides as Vulcanisation Agents and Accelerators

addition of DTM influences the resistance of the vulcanisates during repeated deformations (Fig.6). These experiments show conclusively that DTM improves considerably the properties of the vulcanisates. The kinetics of the addition of S and N, when using DTM and DTP, are discussed and shown in 2 graphs (Figs. 7 and 8). There are 8 Figures, 1 Table and 8 References: 2 English, 5 Soviet and 1 German.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific-Research Institute of the Tyre Industry)

69-20-3-5/24

AUTHORS: Fel'dshteyn, M.S.; Eytingon, I.I.; Pevzner, D.M.; Dogadkin, B.A.

TITLE: The Vulcanization Action of Some Heterocyclic Disulfides (Vulkanizuyushcheye deystviye nekotorykh geterotsiklicheskikh disul'fidov)

PERIODICAL: Kolloidnyy zhurnal, 1958, vol. XX, Nr 3, pp 288-292 (USSR)

ABSTRACT: The organic di- and polysulfides are very important for the intensification of technological processes, because they act at the same time as accelerator and as independent vulcanization agents. In the article, heterocyclic disulfides which contain in the molecule >N-S-S-N< bonds are investigated. To these compounds belongs N,N'-dithiodimorpholine. Rubber vulcanized by this substance is resistant to the formation of cracks at frequent deformations with an increase of the corresponding index from 117.5 to 225 cycles, and is also resistant to aging due to the presence of resistant vulcanization bonds. The vulcanization by N,N'-dithiodimorpholine is accompanied by the joining of sulfur and nitrogen. The content of the bound sulfur, considerably surpasses the content of bound nitrogen. The vulcanizing action of the sub-

Card 1/2

The Vulcanization Action of Some Heterocyclic Disulfides

stance is regarded as a consequence of the asymmetrical decomposition of the compound into free radicals.
There are 5 graphs and 5 references, 3 of which are Soviet and 2 English.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti, Moskva (Scientific Research Institute of the Tire Industry, Moscow)

SUBMITTED: January 23, 1958

Card 2/2 **1. Disulfides—Heterocyclic—Vulcanization**

S/138/59/000/07/08/009

15.9130

82266

AUTHORS: Fel'dshteyn, M.S., Eytingon, I. I., Levitin, I. A., Shapiro, A. L., Sokolova, L. M.

TITLE: On the Application of Diethylaminomethyl-2-Thiobenzothiazole (BTMA) as an Accelerator of Tire Rubber Vulcanization

PERIODICAL: Kauchuk i Rezina, 1959, No. 7, pp. 40-47

TEXT: The authors refer to aminomethyl derivatives of 2-mercaptobenzothiazole as being effective vulcanization accelerators of mixtures of natural and synthetic butadiene-styrene rubber. This subject was given detailed consideration in Ref. 1-3. It is stressed by the authors of this article that diethylaminomethyl-2-thiobenzothiazole, a respresentative of the group under discussion, being close in its properties to the accelerator, used at present in industry, sulfenamide BT, differs from it, however, by ensuring a higher rate of vulcanization of the rubber mixtures at the initial stage. Besides, the sulfenamide BT accelerator is difficult to store. The authors also point out that the BTMA accelerator does not have many of the shortcomings which the latter accelerator does. They list the physical and chemical properties of BTMA and specify how it can be obtained in the laboratory. In order to utilize BTMA in industry, for tire manufacturing,

Card 1/2

S/138/59/000/07/08/009

On the Application of Diethylaminomethyl-2-Thiobenzothiazole (BTMA) as an Accelerator of Tire Rubber Vulcanization 82266

wide-scale tests were conducted in the plants. It was shown that the introduction of BTMA accelerator into the protective mixtures of butadiene-styrene rubber (SKS-30 AM), instead of sulfenamide BT, and also into the mixture of butadiene-styrene and natural rubber (at the ratio 70:30), containing various types of carbon black, has very little effect on the plastic-elastic properties of these mixtures and leads to the production of vulcanizates equal to those with sulfenamide BT in their physico-mechanical properties. An experimental batch of tires was produced using the BTMA accelerator in the protective mixture. The technical properties of this protective rubber, according to static and dynamic test data, and according to the durability of the tire casings under stand rolling tests, are actually equal to those of the serial rubber, containing the BT accelerator. As a result of the obtained information, the authors recommend that wide-scale tests be carried out on the BTMA accelerator in protective rubbers instead of on the rubber with the BT accelerator, in several tire-manufacturing plants. There are 9 sets of graphs, 4 tables, 4 Soviet references.

ASSOCIATION: Moskovskiy shinnyy zavod i Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (The Moscow Tire-Manufacturing Plant and the Scientific Research Institute of the Tire Industry)

Card 2/2

FEL'DSHTEYN M.S.; RYTINGON, I.I.; PEVZNER, D.M.; STREL'NIKOVA, N.P.; DOGADKIN, B.A.

Study of a series of derivatives of-mercaptobenzothiazole and dimethyldithiocarbamic acid as vulcanization accelerators. Kauch. i rez. 18 no.1:16-21 Ja '59. (MIRA 12:1)

1.Nauchno-issledovatel'skiy institut shinnoy promyshlennosti. (Vulcanization) (Benzothiazole) (Carbamic acid)

SOV/69-21-4-10/22

5(4)

AUTHOR: Dogadkin, B.A., Fytingon, I.L., Fel'dshteyn, M.S., Tarasova Z.N., Gur'yanova, Ye .N., Lin Yang Ch'in, Klauzen, N.A. and Pevzner, D.M.

TITLE: Vulcanization of Rubber in the Presence of Aminomethyl Derivatives of 2-Mercaptobenzothiazole

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 4, pp 427-435 (USSR)

ABSTRACT: The authors synthesized a number of compounds, condensation products of 2-mercaptobenzothiazole and formaldehyde with various amines, to test them as accelerators of vulcanization in mixtures of synthetic and natural rubbers. According to the data of spectral analysis, the chemical structure of these 2-mercaptobenzothiazole derivatives is characterized by the presence of a -S-C-N- group. The experiments proved that aminomethyl derivatives of 2-mercaptobenzothiazole are effective accelerators of the vulcanization process. Figure 3 (graph) shows the vulcanizing activity of these derivatives in comparison with

Card 1/2

Vulcanization of Rubber in the Presence of Aminomethyl Derivatives of 2- Mercaptobenzothiazole

the effect of sulfenamide accelerators. It was further found that vulcanization of rubber mixtures with aminomethyl derivatives is characterized by higher rates in the initial period as compared with vulcanization of mixtures containing sulfenamide accelerators. In comparison with the latter, aminomethyl derivatives enter into isotopic exchange with di-2-benzothiazolil-disulfide at lower temperatures (graphs 6 and 7). Aminomethyl derivatives of 2-mercaptobenzothiazole do not exert an independent structurizing (vulcanizing) effect on rubber (table 3). In this respect they differ from the sulfenamide compounds. There are 7 graphs, 3 tables and 7 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti, Moskva (Scientific Research Institute of the Tire Industry, Moscow)

SUBMITTED: 23 December, 1958

3(5)
AUTHORS: Eytingon, I. I., Strel'nikova, N. P., Fel'dshteyn, M. S.

SOV/79-29-6-56/72

TITLE: Synthesis of Some 1,4-Piperazine-bis-carbothiosulfonamides (Sintez nekotorykh 1,4-piperazin-bis-karbotiosul'fenamidov)

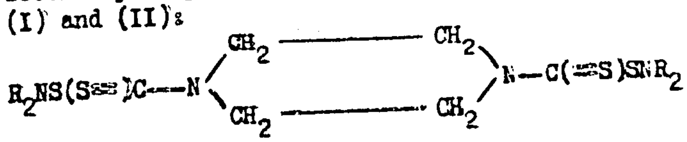
PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 6, pp 2032-2034 (USSR)

ABSTRACT: There are contradictory data in technical literature on the chemical character of products of the conversion of equimolecular quantities of piperazine and carbon disulfide. The fine-crystalline end product of this reaction corresponds to the empirical formula $C_5H_{10}N_2S_2$. This compound, called "thioid", is used as a vermifuge, as well as for analytic determination of cobalt in the presence of nickel and copper. T. Pavolini and F. Gambarin (Ref 2) heated the thioid with 0.1 normal solution of KOH and obtained the neutral salt $C_{10}H_{18}N_4S_4K_2$, which according to their opinion points to the presence of a complex of compounds with two sulfhydryl groups. I. Dunderdale and F. Watkins (Ref 3) dissolved the thioid in an alkaline lye and obtained after treatment of the solution with benzyl chloride, a mixture composed of benzyl esters of the piperazine-carbodithio-1- and piperazine-dicarbodithio-1,4-acid.

Card 1/3

Synthesis of Some 1,4-Piperazine-bis-carbothiosulfonamides SOV/79-29-6-56/72

According to these scientists the initial product is a complex consisting of structural units of the mono- and dicarbodithio-acids of piperazine. The authors obtained by conversion of carbon-disulfide with piperazine in an alkaline medium, and by subsequent oxidizing condensation of the reaction product with the corresponding secondary aliphatic amines, two until present unknown compounds: (I) and (II):



R—CH_3(I), C_2H_5(II).

This synthesis leads to the assumption that, in the conversion of piperazine with carbon-disulfide in an alkaline medium the formation of the acid (III) takes place, which serves as an intermediate product for the synthesis of sulfonamido derivatives, followed by an oxidizing condensation with the amines (Scheme). The two compounds obtained are adequately efficient accelerators for the sulfur vulcanization of natural and synthetic butadiene-styrene rubber. There are 3 references.

Card 2/3

Synthesis of Some 1,4-Piperazine-bis-carbothiosulfonamides SOV/79-29-6-56/72

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute for Pneumatic Tire Industry)

SUBMITTED: May 9, 1958

Card 3/3

SOV/80-32-4-34/47

5(3), 15(9)

AUTHORS: Fel'dshteyn, M.S., Dogadkin, B.A., Eytingon, I.I., Shcherbachev, G.P. and Strel'nikova, N.P.

TITLE: On the Problem of the Effect of the Chemical Structure of Sulfenamide Compounds on Vulcanization Activity (K voprosu o vliyanii khimicheskoy struktury sul'fenamidnykh soyedineniy na vulkanizatsionnuyu aktivnost')

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 4, pp 893-901 (USSR)

ABSTRACT: The authors investigated the effect of various sulfenamide compounds as vulcanization accelerators with an aim to find a correlation between their vulcanization activity and chemical structure. Representatives of the two classes of these compounds, namely derivatives of the mercaptobenzothiazole and dimethyldithiocarbamic acid, were studied. The effectiveness of their action as accelerators was investigated on mixtures which consisted of butadiene-styrol rubber (SKS-30A). The effect of accelerators on the kinetics of vulcanization is shown in Figure 1 according to data of sulfur addition, in Figure 2 according to the changes in solubility in chloroform, and in Figure 3 according to the changes in the value of the equilibrium module. The kinetic curves of vulcanization presented in Figures

Card 1/2

1 and 2 show the presence of an initial delayed period of vulcanization. Therefore, the authors conclude that this peculiarity prevents the phenomenon of premature vulcanization and ensures a more lasting staying of the mixtures in the visco-flowing state, which is of importance for manufacturing monolithic multi-layer items. The application of the described accelerators of vulcanization is considered as technologically expedient, for instance in the manufacture of tire treads.
There are 12 graphs, 1 table and 7 references, 5 of which are Soviet and 2 English.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute for Tire Industry)

SUBMITTED: December 11, 1957

5 (1), 5 (2), 5 (3)
AUTHORS: Fel'dshteyn, M. S., Eytingon, I. I., SOV/20-128-4-28/65
Dogadkin, B. A.

TITLE: The Vulcanization Effect of 2-Mercaptobenzothiazol Derivatives

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 4, pp 736 - 739 (USSR)

ABSTRACT: The problem of finding vulcanization systems, particularly vulcanization accelerators, with given properties is complicated by the fact that the influence of the chemical structure of these accelerators on their vulcanization activity has not yet been clarified. Therefore, experimental investigations in this respect are interesting both from a theoretical and practical point of view. The present paper investigates the vulcanization effect of several, chemically different sulphene-amide derivatives of the substance mentioned in the title (see Scheme). They were: N,N-diethyl-2-benzothiazol-sulphene amide (1), N-oxy-diethylene-2-benzothiazol-sulphene amide (2), N-cyclohexyl-2-benzothiazol-sulphene amide (3), N,N-dicyclohexyl-2-benzothiazol-sulphene amide (4), and N-phenyl-2-benzothiazol-sulphene amide (5). Figure 1 (Curve 3) shows that, by use of (2), the induction period of the vulcanization is more distinct-

Card 1/3